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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 11111P3WO/RH		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/GB 03/03743	International filing date (day/month/year) 01.09.2003	Priority date (day/month/year) 10.09.2002	
International Patent Classification (IPC) or both national classification and IPC C11D17/04			
Applicant RECKITT BENCKISER INC et al.			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 7 sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 9 sheets.</p>			
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the opinion</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>			
Date of submission of the demand 05.04.2004		Date of completion of this report 03.12.2004	
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer Diebold, A Telephone No. +49 89 2399-8442	



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I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

2-19 as originally filed
1, 1a filed with telefax on 07.09.2004

Claims, Numbers

1-24 filed with telefax on 07.09.2004

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

5. ☒ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

see separate sheet

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6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	3-6,8,16-19,21
	No: Claims	1,2,7,9-15,20,22-26
Inventive step (IS)	Yes: Claims	
	No: Claims	1-26
Industrial applicability (IA)	Yes: Claims	1-26
	No: Claims	

2. Citations and explanations

see separate sheet

Item V:

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement.

- 1) The amendments filed with the fax dated 07.09.2004 introduce subject-matter which extends beyond the content of the application as filed, contrary to Article 34(2)(b) PCT, the reasons being as follows:

Present claim 1 as originally filed cites for component (b) an aqueous composition comprising one or more cationic surfactants having germicidal properties, essential oils, other antimicrobial/germicidal agents, anionic surfactants, nonionic surfactants, and pH modifiers. From this wording, as well as from certain parts of the description (see page 1, lines 28-40), one can assume that component (b) requires the presence of all these products, with eventually some further optional chemicals due to the term "comprising".

On the other hand, the original filed dependent claims 3, 5, 7, 9, 10 and 12 teaches that the component (b) is only one of cationic surfactants having germicidal properties, essential oils, antimicrobial/germicidal agents, an anionic surfactant, a nonionic surfactant or a pH modifier, respectively. These claims 3, 5, 7, 9, 10 and 12 are all only dependent to the claims 1 or 2, and thus, any possible combinations (i.e. a mixture) of these products are not claimed. In other words, independent claim 1, in view of the dependent claims 3, 5, 7, 9, 10 and 12, can also be interpreted as a component (b) comprising one of the products selected from cationic surfactants having germicidal properties, essential oils, other antimicrobial/germicidal agents, anionic surfactants, nonionic surfactants, and pH modifiers, but no combination of these products (the wording of the component (b) of claim 1 does not include the terms "and mixture thereof").

In conclusion, the wording of the independent claim 1, in view of the dependent claims 3, 5, 7, 9, 10 and 12, can be interpreted in two ways: either component (b) requires the presence of all the cited products, or component (b) is only one of these products.

However, the new independent claims 1 or 12, alone or in combination with their dependent claims, recites now a component (b) being an aqueous composition comprising necessarily one or more cationic surfactants having germicidal properties,

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as well as further optional chemicals comprising one or more essential oils, other antimicrobial/germicidal agents, anionic surfactants, nonionic surfactants, and pH modifiers. Consequently, independent claims 1 or 12 now encompass any possible combinations of the listed products. These combinations, except the one containing all the products, have not been disclosed in the application as originally filed.

Thus, these amendments introduce subject-matter which extends beyond the content of the application as filed, contrary to Article 34(2)(b) PCT.

- 2) Contrary to the opinion given in the Written Opinion dated 14 May 2004, the claims 23 and 24 (prior claims 27 and 28) do also not fulfil the requirement of Article 34(2)(b) PCT for the same reasons as mentioned herein above.
- 3) In the light of the fact that the claims 1-24 presently on file do not comply with the requirements of Article 34(2)(b) PCT, it is not possible to fully assess novelty and/or inventive step. The following novelty and inventive step objections already raised in the Written Opinion are thus provisionally maintained. These objections are based on the claims 1-26 as originally filed. Novelty and inventive step is not assessed for the claims 27 and 28 as they do not fulfil the requirement of Article 34(2)(b) PCT.
- 4) Reference is made to the following documents D1-D5 from the international search report:

D1 = WO-A-00/12672
D2 = WO-A-98/33880
D3 = WO-A-01/00765
D4 = US-A-5,252,312
D5 = US-A-4,687,663
- 5) The subject-matter of the independent claims 1 and 14 does not comply with the requirement of Article 33(2) PCT, because the subject-matter of these claims cannot be regarded as being novel, the reasons being as follows:

Document D1 (see relevant passages in the international search report) discloses a composition having utility as a hard surface cleaner comprising two liquids which are separately maintained prior to forming an admixture during delivery to a surface to be treated, as well as a method of cleaning using said composition. The first aqueous liquid comprises a hypochlorite (which reads to the antimicrobial/germicidal agent),

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a pH modifier (i.e. sodium hydroxide or sodium carbonate), an anionic surfactant (i.e. a fatty acid soap) and/or a nonionic surfactant (i.e. an amine oxide), and the second aqueous liquid comprises hydrogen peroxide. A container maintaining the two aqueous liquids separately until delivery and providing for such delivery is also disclosed. The container includes one compartment for the hypohalite-containing liquid and another compartment for the peroxygen-containing liquid.

Document D2 (see relevant passages in the international search report) pertains to a liquid cleaner comprising parts A and B which are physically separated until use as well as a method of cleaning a surface. Part A contains a peroxide, namely a hydrogen peroxide, and part B comprises a compound selected from the group consisting of sodium hypochlorite (reading to the antimicrobial/germicidal agent), sodium hydroxide, or sodium bicarbonate (see examples I-III).

Document D3 (see relevant passages in the international search report) relates to an aqueous liquid detergent composition prepared in a dual-compartment container, as well as a method of using such a composition, comprising in the first compartment an anionic surfactant (Na-C25AE1.80S, C11.8 HLAS or AES paste), a nonionic surfactant (Neodol 23-9 or amine oxide), and a pH modifier (NaOH and borax), and in the second compartment, hydrogen peroxide (see examples 17-19).

Document D4 (see relevant passages in the international search report) teaches a packaged effervescent mouthwash composition comprising in two different compartments of a container a first liquid component including hydrogen peroxide, and a second liquid component including sodium bicarbonate and sodium lauryl sulphate.

Document D5 (see relevant passages in the international search report) exemplifies a method for cleaning teeth including extruding a first semi-solid component including hydrogen peroxide as an active ingredient, and extruding a second semi-solid component comprising sodium bicarbonate as an active ingredient, the first and second components being suitable for oral use. The first component and the second component are placed in contact with each other on a toothbrush. A container for the storage and delivery of such a preparation is also described.

- 6) The additional features of the dependent claims 2, 7, 9-13, 15, 20 and 22-26 are also disclosed in at least one of the documents D1-D5. Therefore, the subject-matter of these claims is not regarded as being novel in the sense of Article 33(2) PCT.
- 7) The present dependent claims 3-6, 8, 16-19 and 21 appear to be novel over the cited prior art. However, the subject-matter of these claims resides in the use of well known compounds having germicidal or antimicrobial properties. Indeed, cationic

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surfactants, essential oils, amine oxide, organic solvents, and the components listed in the claims 8 or 21 are known for their germicidal or antimicrobial properties (see EP-A-0 842 604 and EP-A-1 001 012), and are thus merely one of several straightforward possibilities from which the person skilled in the art would select, without the exercise of inventive skill, in order to solve the problem. Therefore, the subject-matter of these claims is not regarded as involving an inventive step in the sense of Article 33(3) PCT.

- 8) The present claims 1-26 meet the requirement under Article 33(4) PCT, because the present invention is industrially applicable in the field of detergents.

Additional remarks

- 9) It is clear from the description on page 1 that it is essential to the definition of the invention that the resulting composition that is applied to the surface in need of treatment should have a pH greater than 7.00. This is due to the fact that hydrogen peroxide is stable in acidic environments ($\text{pH} < 7$) but active as a bleaching agent in alkaline environments ($\text{pH} > 7$).

Since the independent claims 1 and 14 do not contain this feature, they do not meet the requirement following from Article 6 PCT taken in combination with Rule 6.3(b) PCT that any independent claim must contain all the technical features essential to the definition of the invention.

- 10) The hereinafter mentioned features of the present claims 11, 13, 24 and 26 are not referred to in the description. These claims are therefore not supported by the description as required by Article 6 PCT.

Claims 11 and 24: a mixture of anionic and nonionic surfactants has not been mentioned in the instant specification.

Claims 13 and 26: there is no indication in the present application that the pH of component (b) should be higher than the pH of component (a).

- 11) The present claims 16 to 26 are dependent to claim 14 which recites a dispenser. Thus, said claims 16 to 26 should also relate to a dispenser, and not to a process as currently claimed.